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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/423,806	03/17/2000	AKIHIKO IBATA	MEIC:070	7172

7590

03/06/2003

PARKHURST & WENDEL
1421 PRINCE STREET
SUITE 210
ALEXANDRIA, VA 22314-2805

EXAMINER

POKER, JENNIFER A

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 03/06/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/423,806

Applicant(s)

IBATA ET AL.

Examiner

Jennifer A. Poker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-19, filed on December 12, 2002 have been fully considered by the examiner but were not persuasive. Furthermore, the arguments are moot in view of the new ground of rejection, which were necessitated by the amendment and are addressed below.
2. The corrections to the specification (abstract) have been accepted.
3. The rejections under 35 USC § 112 are withdrawn.
4. Regarding claims 1-19, applicant states that the presently amended claimed component comprising a spiral coil conductor located on an outer surface of a composite component is not disclosed or suggested in the cited reference. However, a new art rejection is found below due, which was necessitated by amendment.

Claim Objections

5. Claim 21 is objected to because of the following informalities: The preamble is not consistent with method claim 19 on which it is dependent. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the

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subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,598,136 to Kano, et al, in view of U.S. Patent Number 5,197,170 to Senda, et al.

Kano, et al, discloses in prior art, a conventional chip coil comprising (Regarding claims 1, 5, and 6):

(1) A spiral coil conductor formed on a surface of an alumina substrate (Figure 5) (Column 1, lines 28-35),

(2) Terminal electrodes formed on both ends of the alumina substrate (Figure 5) (Column 1, lines 28-35),

(3) The ends of the spiral conductor being connected to the terminals (Figure 5) (Column 1, lines 28-35).

Kano, et al, discloses the claimed invention except for the substrate being a capacitor element formed of insulation and electrode layers.

Senda, et al, discloses An LC composite network comprising a substrate having a capacitor section including a capacitor network formed by alternately laminating a ceramic layer and a capacitor electrode layer; forming a coil section having a coil network including a plurality of spiral coil patterns on the sintered substrate; dividing the laminated substrate having the capacitor section and the coil section into LC composite network parts; and connecting the capacitor electrode with the spiral coil pattern by electrical connection means in each of the LC composite network parts.

One skilled in the art at the time the invention was made would have found it obvious to combine the teachings of Kano, et al, with the teachings of Senda, et al, and incorporated a multi-layered substrate/capacitor unit having laminated insulated sheets so that the part produced in the

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method can be applied to a circuit having a narrower pattern pitch and so that the LC composite component may be mounted in smaller spaces.

Regarding claim 3, Kano, et al, illustrates in Figure 5, that the spiral conductor strip is parallel to the substrate.

Regarding claim 4, Senda, et al, states that the LC composite part comprises a plurality of laminated capacitors (Column 3, lines 48-55). This structure would be beneficial for the purposes of storing more energy.

Regarding claim 7, Kano, et al, states that an insulation layer is formed on the substrate to cover the substrate and the coil. (Abstract)

Regarding claim 9, Kano, et al, states that a conductive layer covers the external insulation layer. (Abstract)

Regarding claims 2 and 8, Kano, et al, in view of Senda, et al, discloses the claimed invention except for the strip being constructed of a same material as the composite component (as claimed in claim 2) and the external insulation layer comprising magnetic material powder and/or ceramic powder (as claimed in claim 8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the most suitable materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 10, Kano, et al, discloses a chip coil comprising:

- (1) A spiral coil conductor formed on a surface of an insulating substrate (Figures 1-5) (Column 4, lines 1-5),
- (2) Terminal electrodes formed on both ends of the substrate (Figure 2a)

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(3) A protective insulation film covering the conductor (Column 6, lines 40-45)

It is seen in figure 2a that the spiral conductor strip is parallel with the substrate.

Kano, et al, discloses the claimed invention except for the plurality of capacitors.

Senda, et al, states that the LC composite part comprises a plurality of laminated capacitors (Column 3, lines 48-55). This structure would be beneficial for the purposes of storing more energy.

One skilled in the art, at the time the invention was made would have found it obvious to combine the teachings of Kano, et al, with the teachings of Senda, et al, and incorporate a layered substrate comprising a plurality of laminated capacitors in order store more charge temporarily.

Regarding claim 20, Kano, et al, states that the terminal electrodes comprise Nickel, which is a magnetic material. (Column 4, lines 20-24) This makes the electrodes magnetic bodies of the composite component.

Claims 11-19 and 21 are the method counterparts to product claims 1-10 and 20, and steps, as such, are inherent for fabricating a component comprising a capacitor with a plurality of insulation layers, conductive layers, and external terminals.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

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mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Poker whose telephone number is 703-305-4037. The examiner can normally be reached on 6:00-3:30, Mon.-Fri. (alternating Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on 703-308-7619. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

jap
February 24, 2003


ELVIN ENAD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800
3/3/03